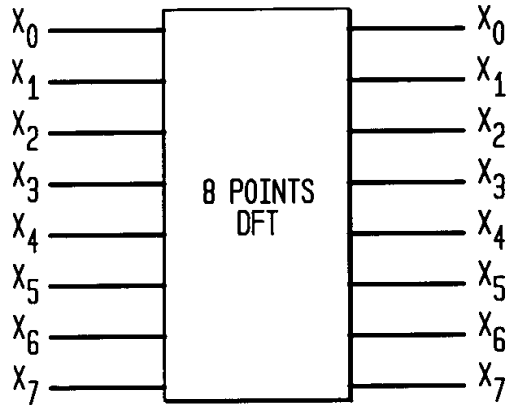
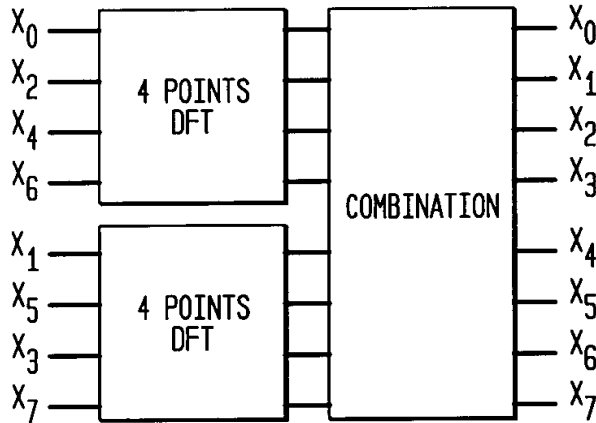


**FIG. 1A**  
(PRIOR ART)  
8 POINTS DFT



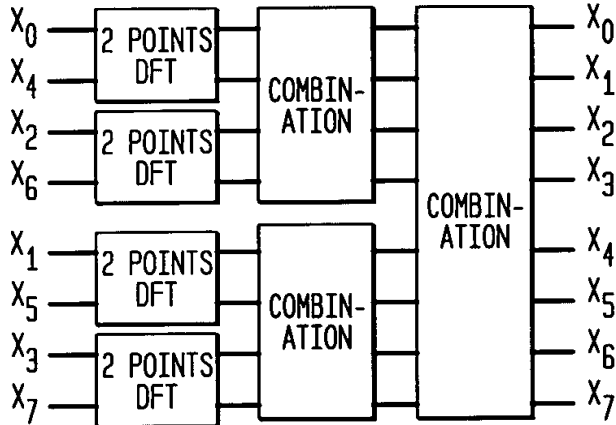
**FIG. 1B**  
(PRIOR ART)

8 POINTS DFT OBTAINED BY COMBINING TWO FOUR POINTS DFT



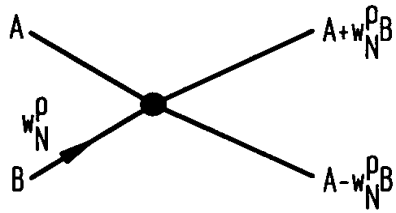
**FIG. 1C**  
(PRIOR ART)

8 POINTS DFT OBTAINED BY COMBINING FOUR TWO POINTS DFT



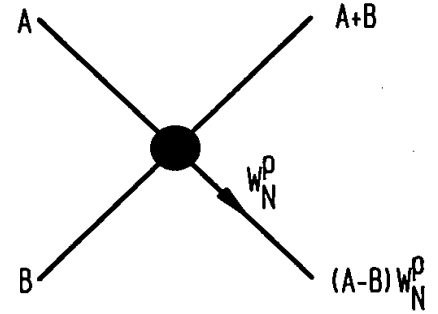
**FIG. 2A1**  
(PRIOR ART)

DIT RADIX-2 BUTTERFLY COMPUTATION



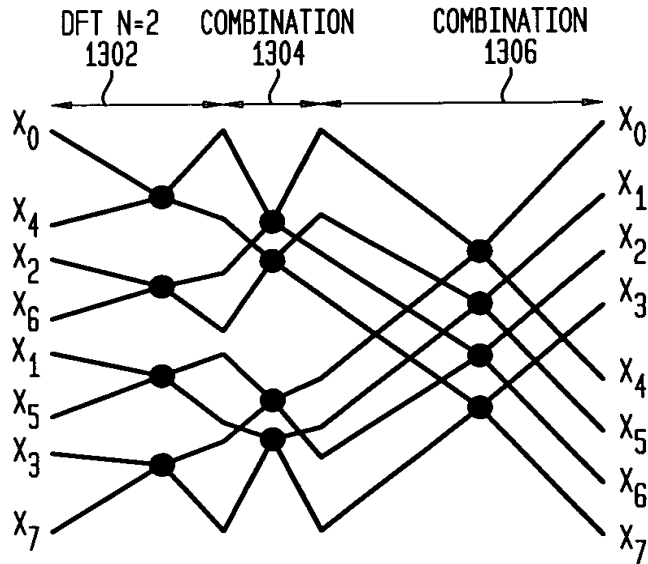
**FIG. 2A2**  
(PRIOR ART)

DIF RADIX-2 BUTTERFLY COMPUTATION



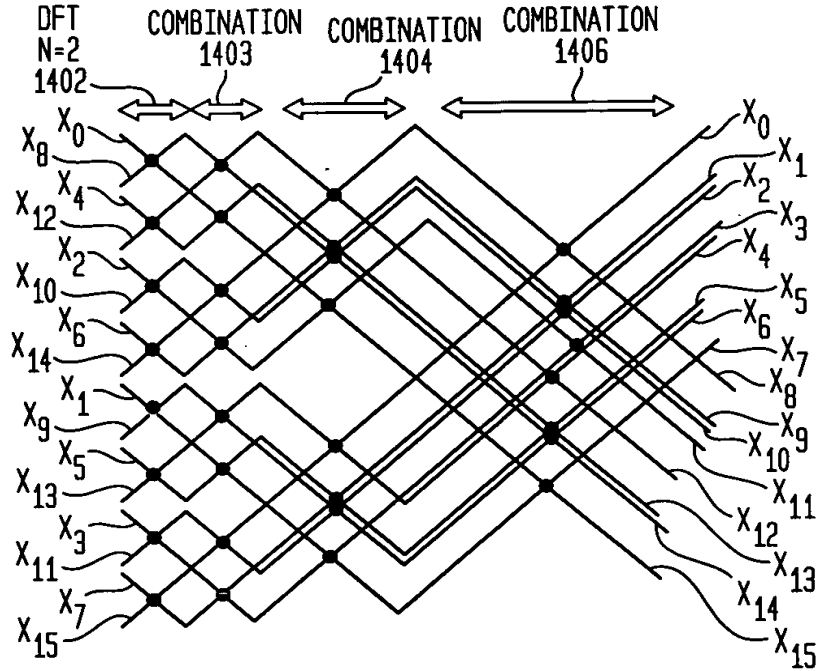
**FIG. 2B**  
(PRIOR ART)

BUTTERFLIES REPRESENTATION OF AN 8 POINTS FFT



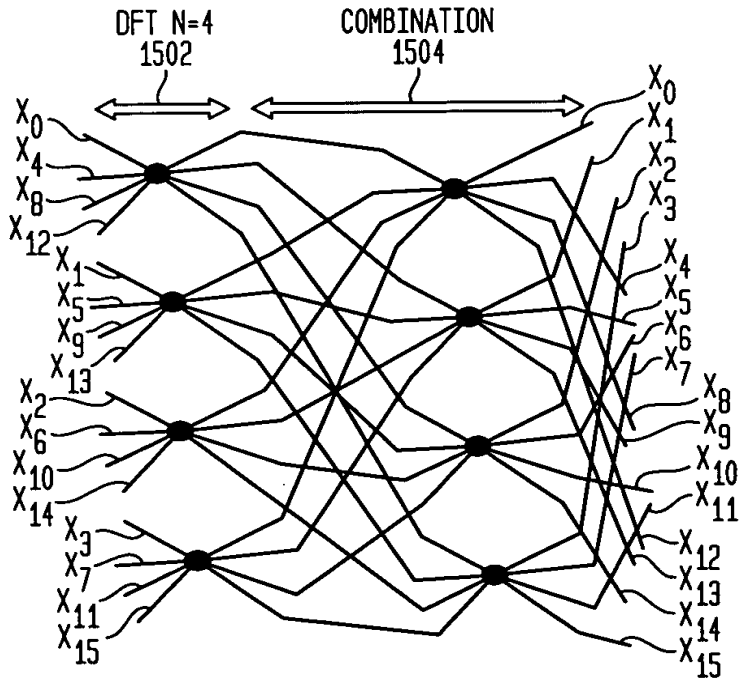
**FIG. 2C**  
(PRIOR ART)

IN PLACE FFT WITH BIT REVERSED INPUTS AND NORMALLY ORDERED OUTPUTS ( $r=2$ )



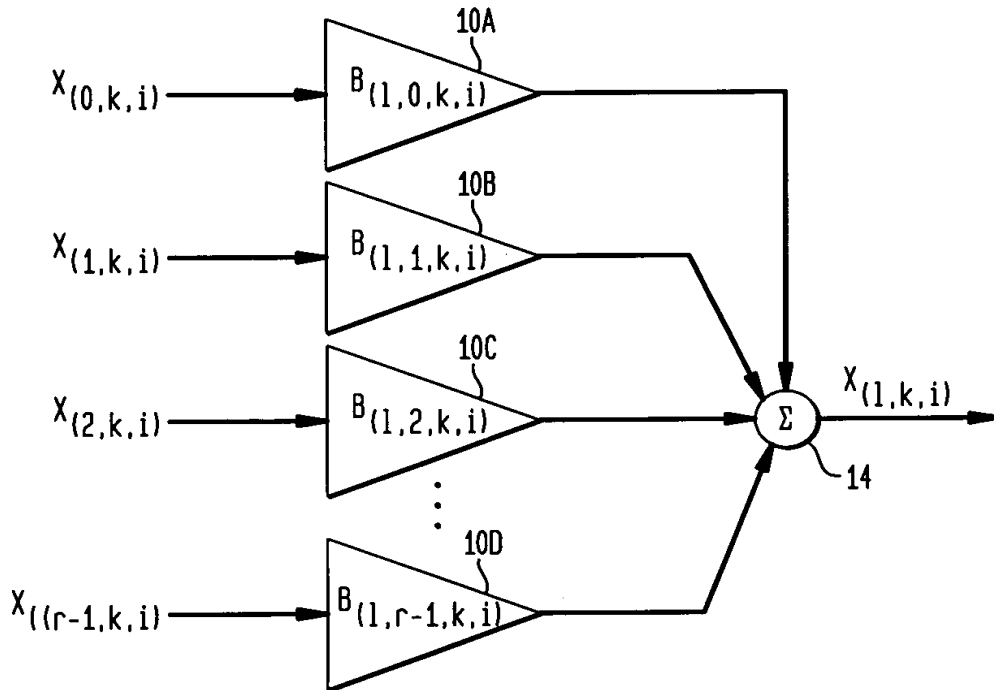
**FIG. 2D**  
(PRIOR ART)

IN PLACE FFT WITH BIT REVERSED INPUTS AND NORMALLY ORDERED OUTPUTS



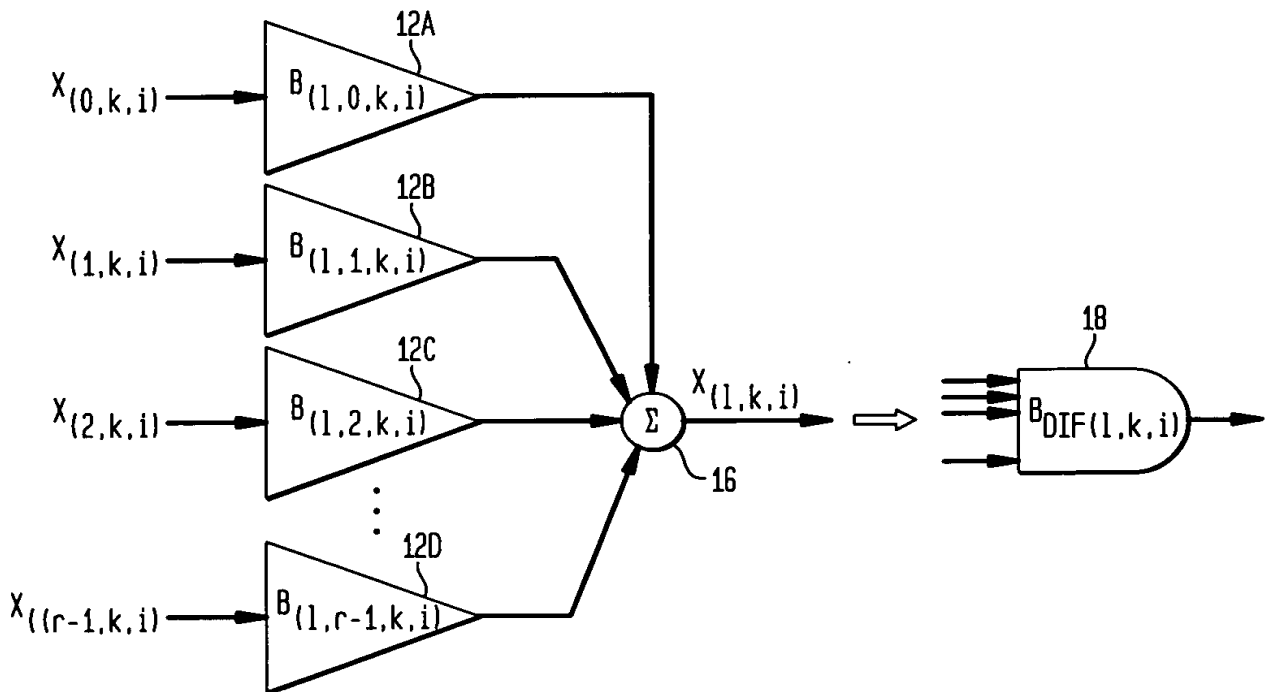
4/12  
**FIG. 3A**

JABER'S RADIX- $r$  DIF ENGINE

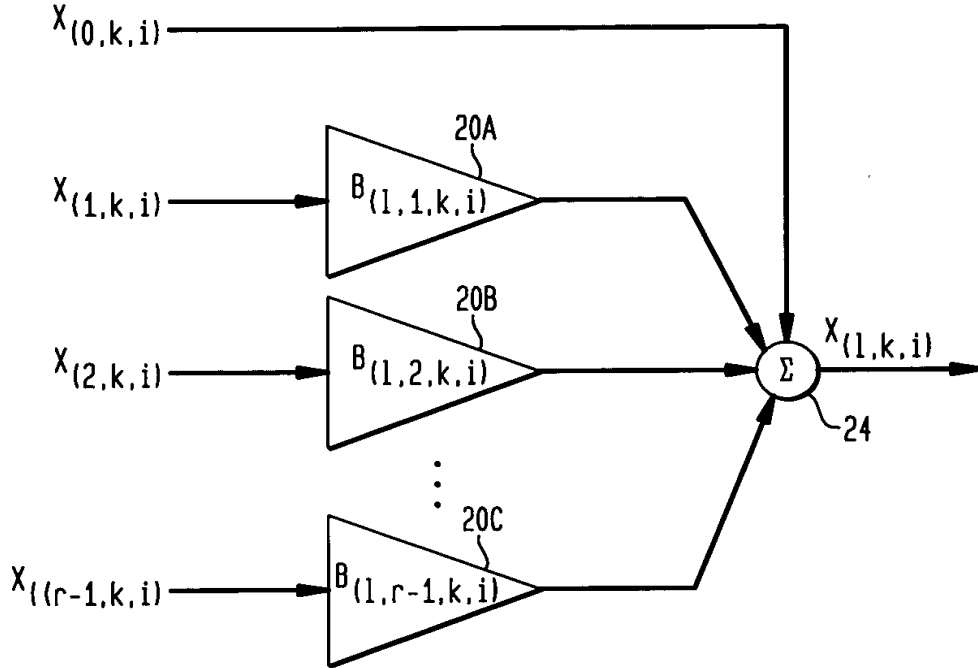


**FIG. 3B**

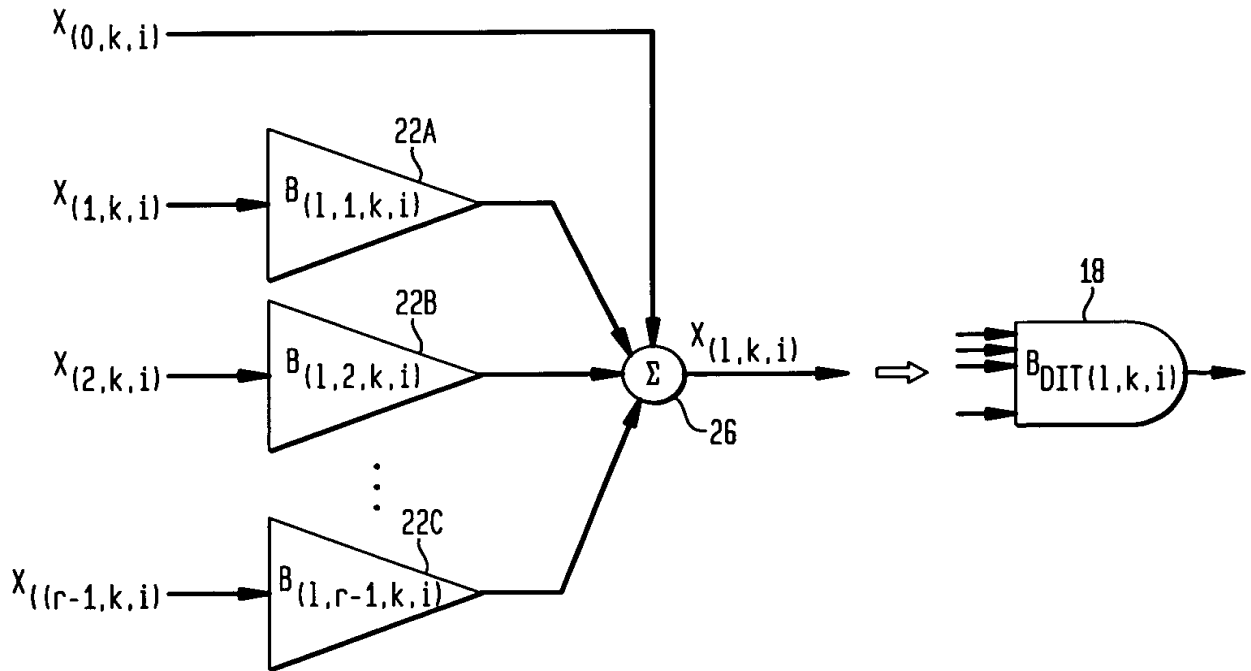
SIMPLIFIED JABER'S RADIX- $r$  DIF ENGINE

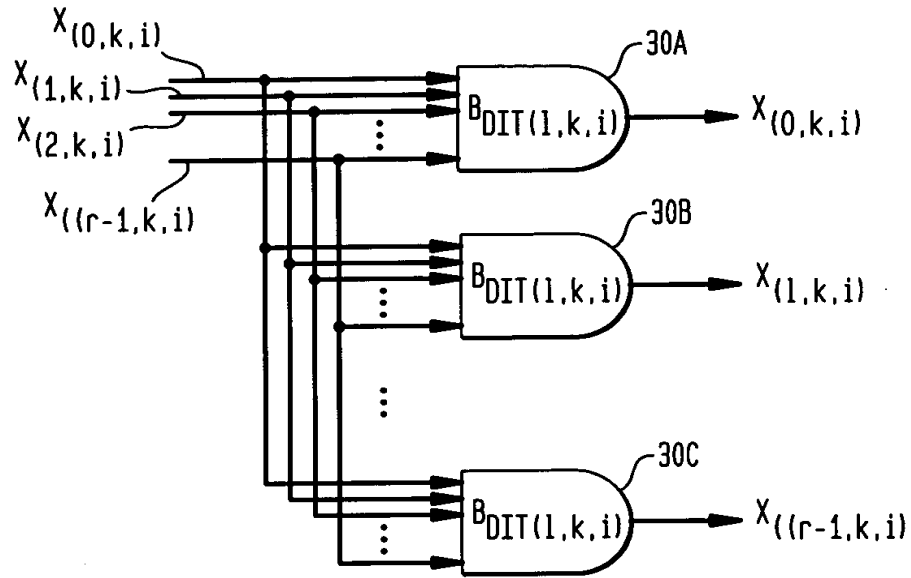
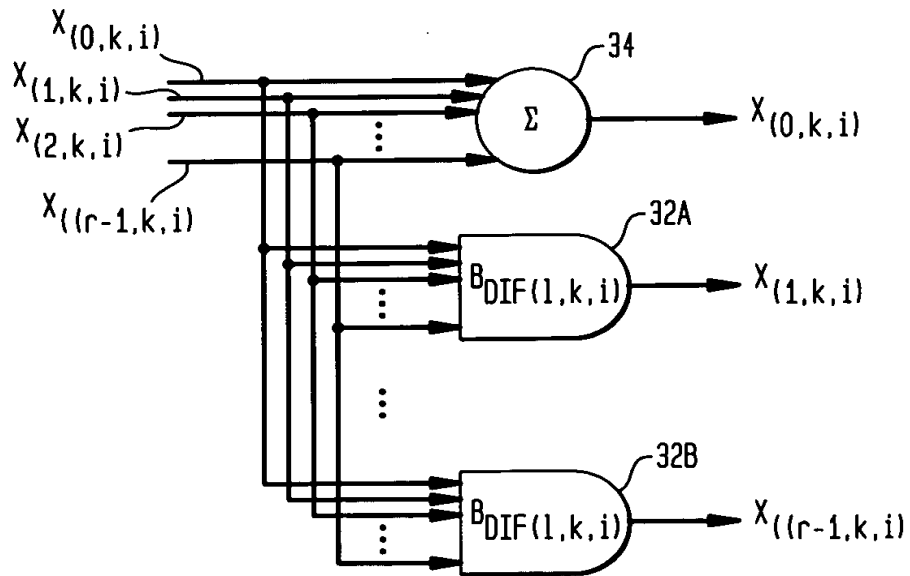


**FIG. 4A**  
 JABER'S RADIX- $r$  DIT ENGINE

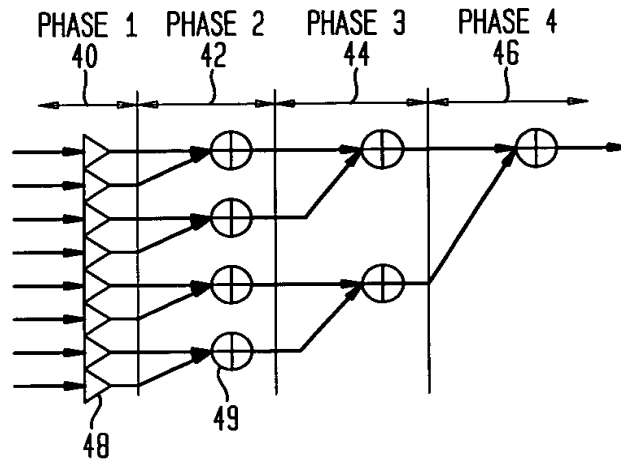


**FIG. 4B**  
 SIMPLIFIED JABER'S RADIX- $r$  DIT ENGINE



**FIG. 5A**JABER'S RADIX- $r$  DIF MODULE**FIG. 5B**JABER'S RADIX- $r$  DIT MODULE

**FIG. 6A**  
RADIX-8 DIT FFT ENGINE



**FIG. 6B**  
RADIX-16 DIF FFT ENGINE

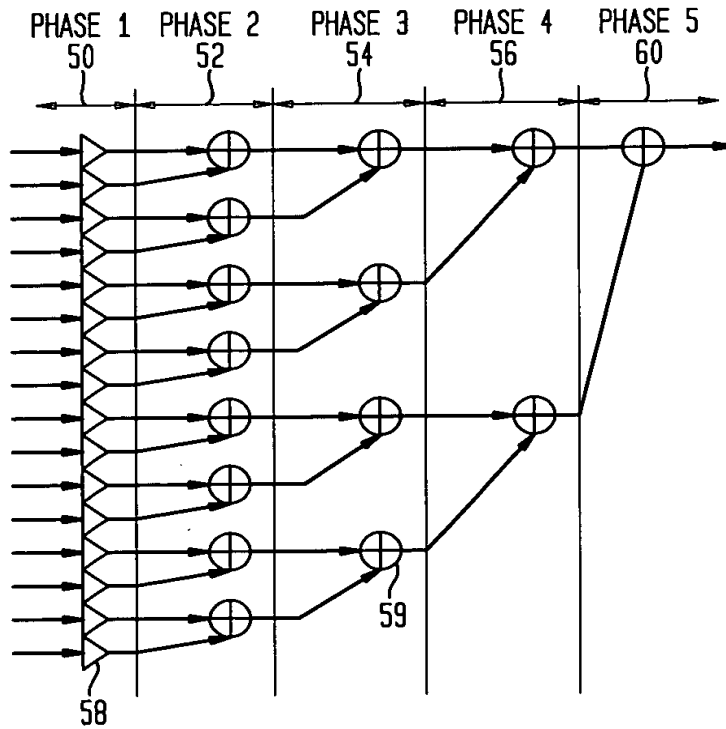


FIG. 7

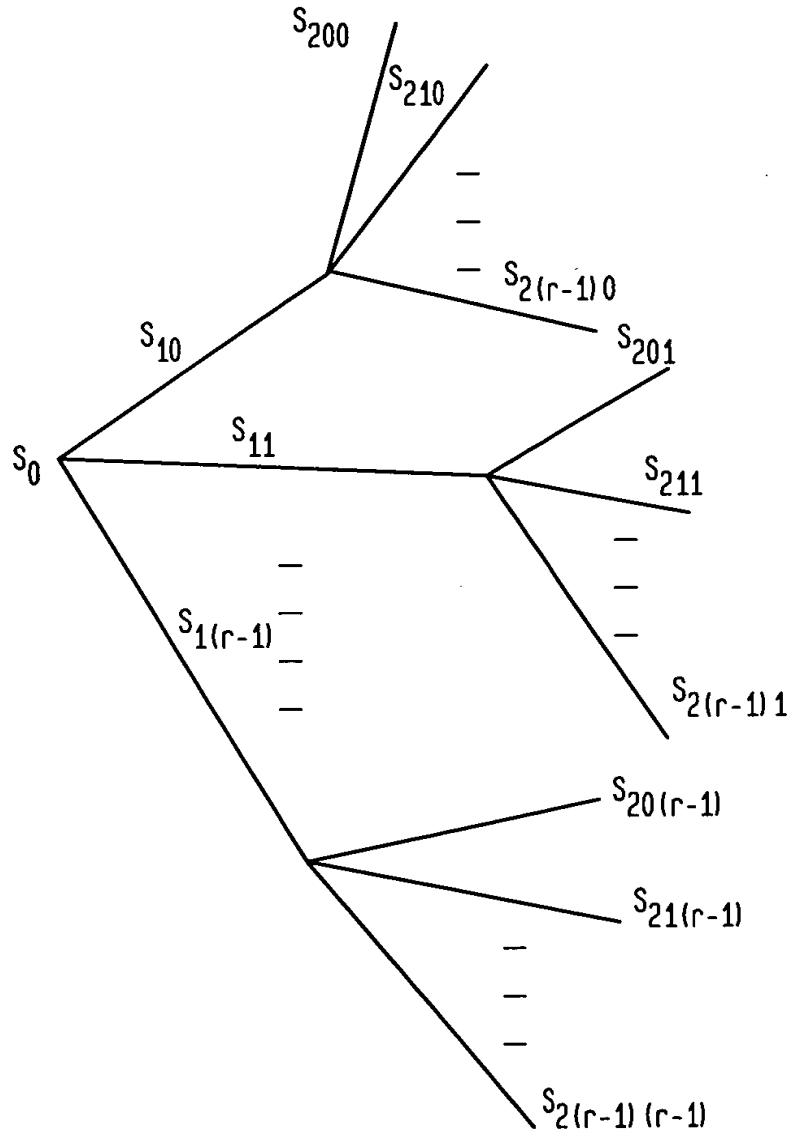




FIG. 8

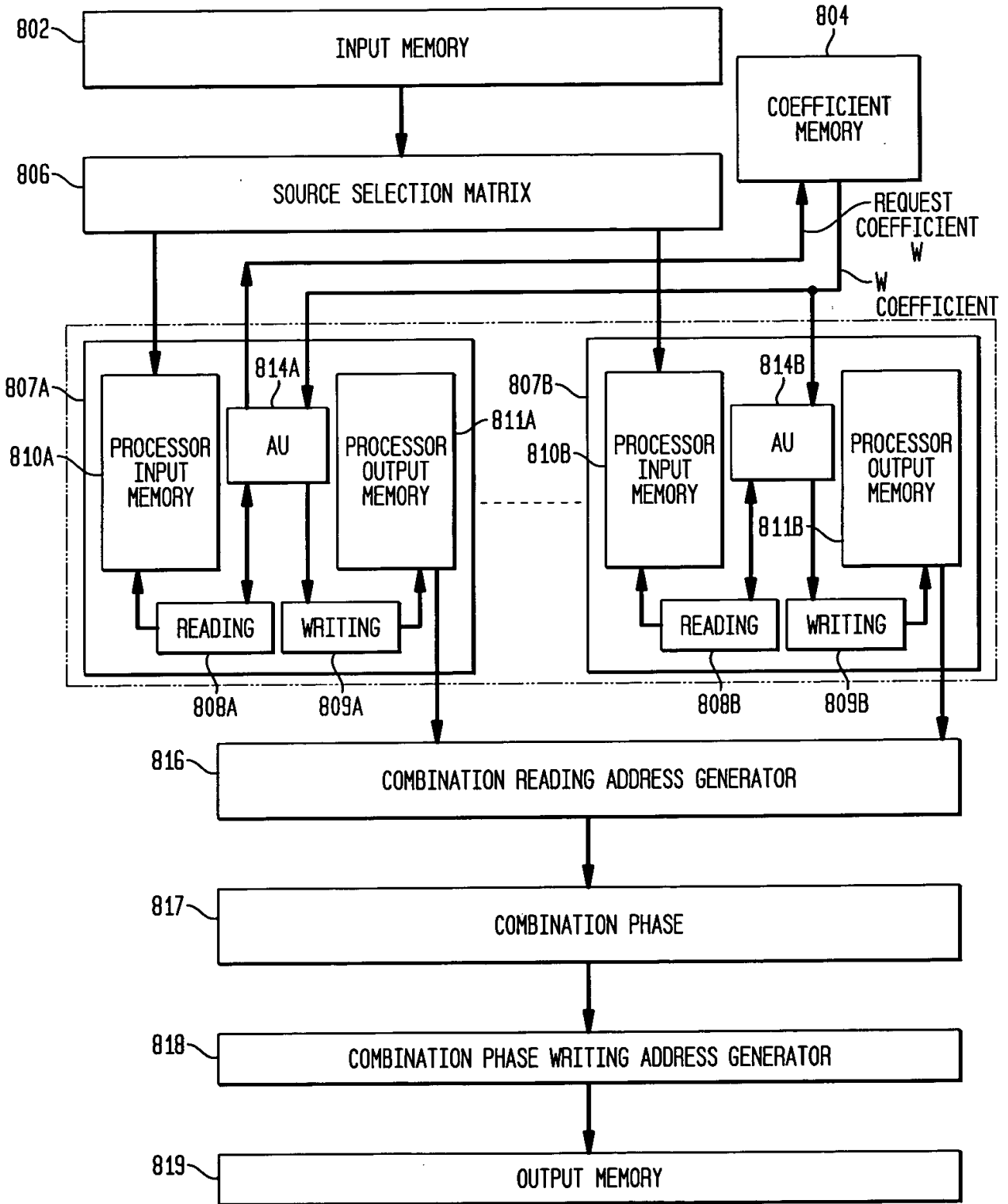


FIG. 9

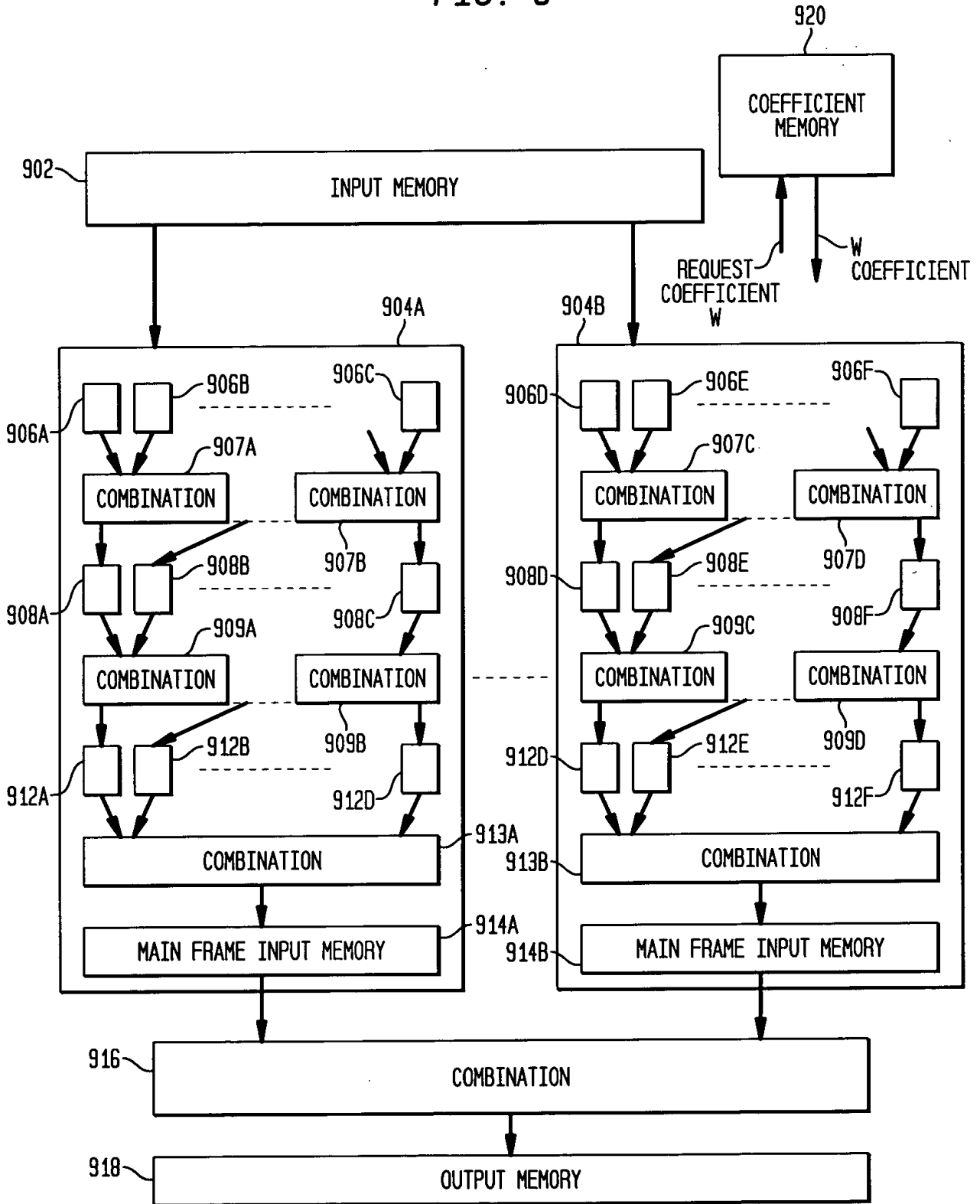


FIG. 10

16 POINTS FFT RADIX 2 ON FOUR PARALLEL PROCESSORS WITH COMBINATION PHASE

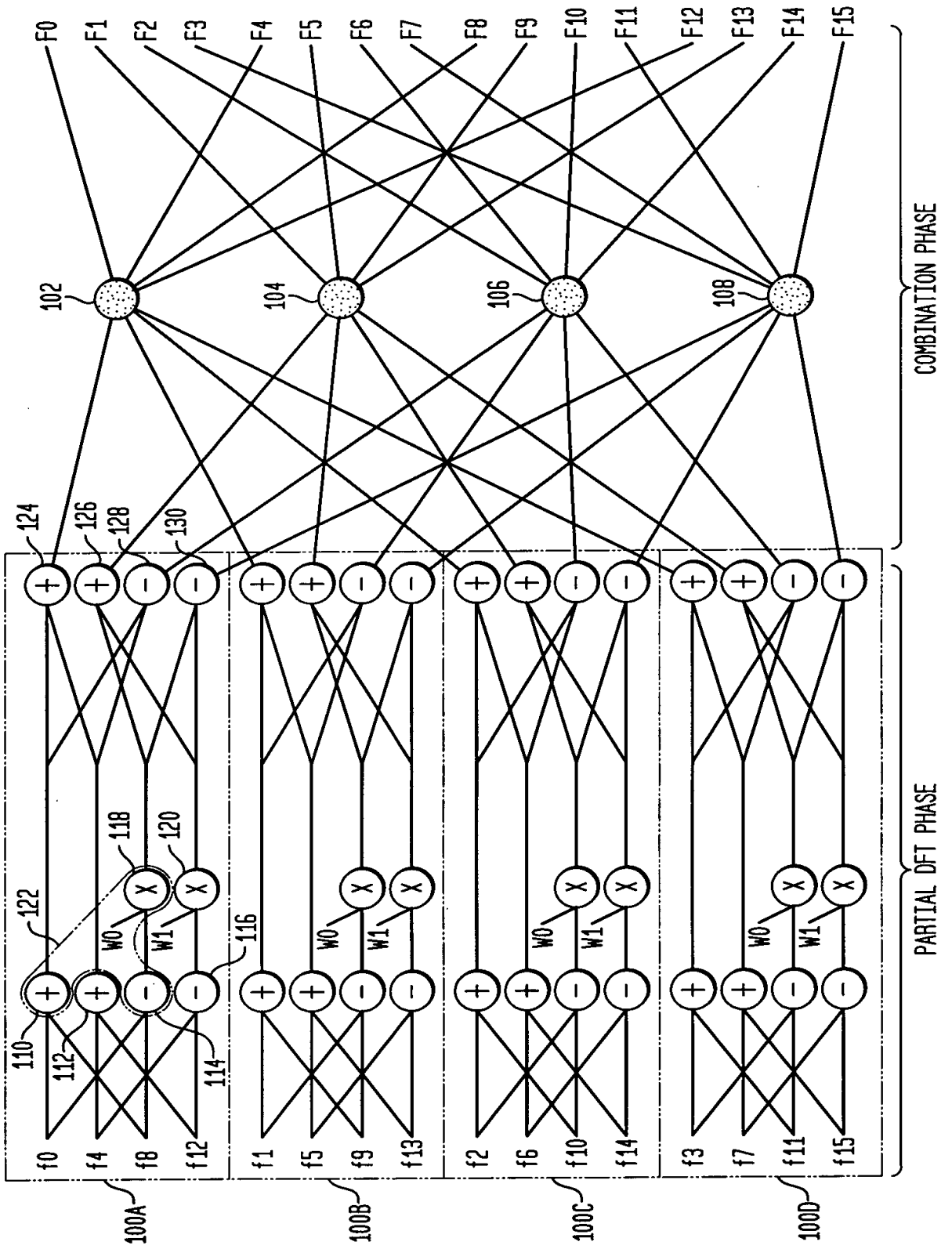
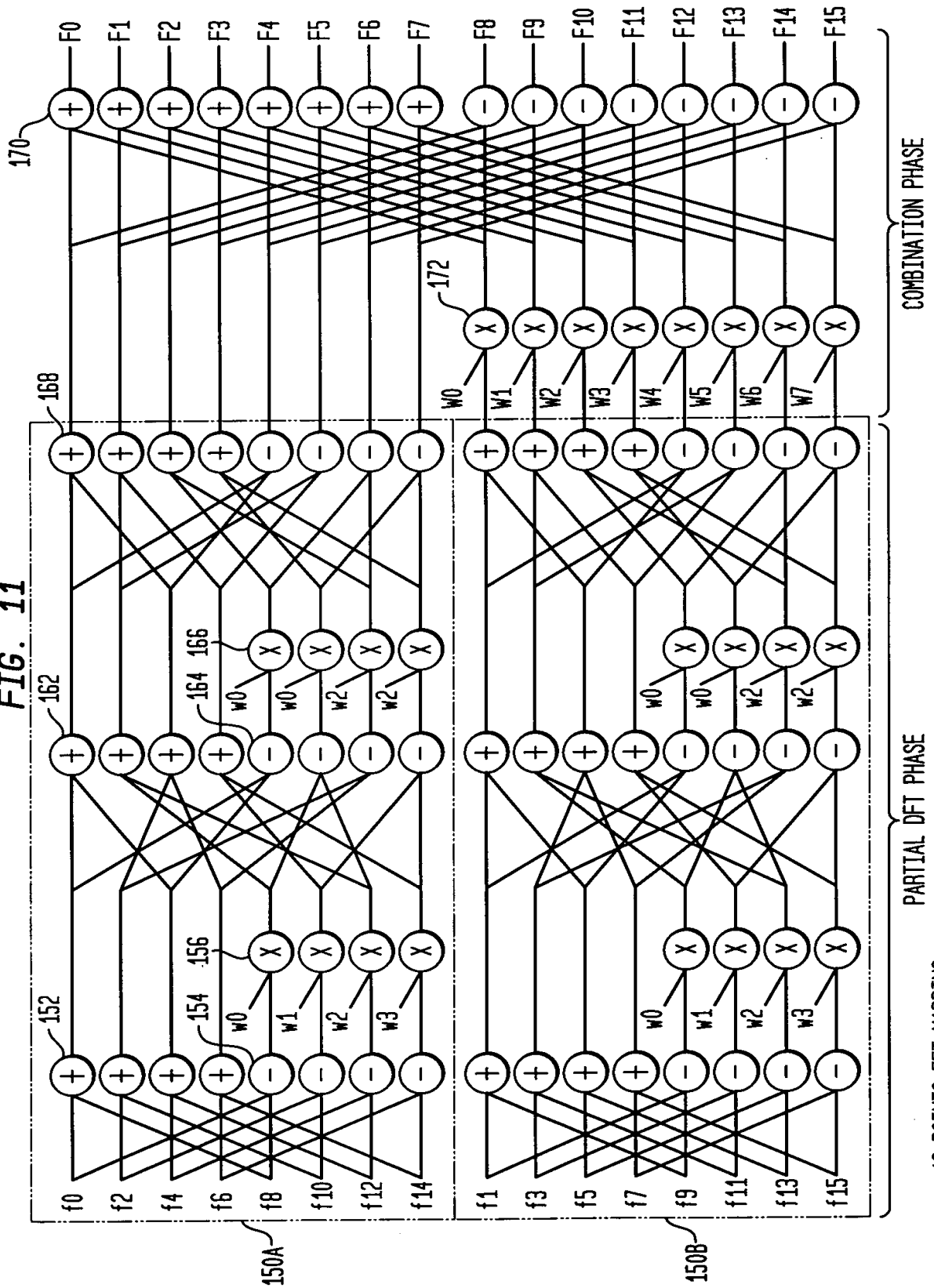


FIG. 11



16 POINTS FFT MAPPING  
WITH COMBINATION PHASE

PARTIAL DFT PHASE

COMBINATION PHASE